

### Master of Science in Cultural Heritage Materials & Technologies



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## **DIPLOMA THESIS:**

# MANAGEMENT AND ENHANCEMENT OF AN ARCHAEOLOGICAL SITE: ANCIENT THOURIA



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#### **ABSTRACT**

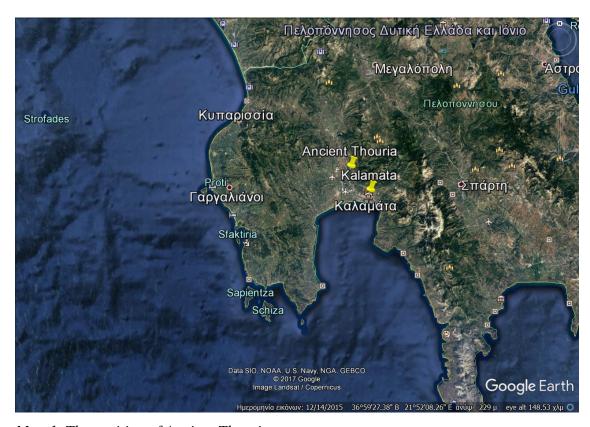
The scope of this thesis was the development of a management and enhancement project for the archaeological site of ancient Thouria. All available information, regarding historical, archaeological and cultural data was collected to aim the goals of the present study. First of all, monuments such as the chamber tombs, the temple of Asclepius, the Roman baths, the tholos tomb and the theatre are presented. Secondly, other archaeological sites are referred as well as museums and statistics that give a complete view of the prefecture.

Afterwards, this thesis refers to the management of the site. The pathology of the site is presented as well as very important suggestions for the appropriate organization. A creation of a management authority for this site conclusively, the facilitating of the roads, durable shelters and fences are some of the suggestions that presented in this chapter.

Last and most importantly, enhancement suggestions are referred. Paths, signs, modern constructions and accessibility to disabled people are recommended. The site is presented as a whole and even the creation of an archaeological park is proposed. New technologies, also, are recommended for a more completely plan. For this purpose, the use of geographic information system (GIS) is considered necessary. It is a computer-based system that provides capabilities to handle georeferenced data. The use of this system is very effective, as it reinforce this work. Specifically, GIS is very important advance in archaeology and management of cultural heritage. The existing information has been used, so the mapping gives a more complete and organized form of the site.

#### 1. INTRODUCTION

Ancient Thouria as a perioikos polis played a very important role in Messenia, as it was the most significant city of western Messenia and the second in power city after Messene, after the latter's foundation in 369 B.C. For this reason, the sea area from the regions of Avia and Phares up to the estuary of Pamisos River was called "Thouriates gulf". The ruins of the ancient city are located on an elongated ridge, with direction north-south, located approximately 10km northwest of the city of Kalamata (map 1), on the right side of the Kalamata-Tripolis motorway, to the north (approximately 2,5km) of the modern town of Thouria (Arapogianni, 2008-2009).



Map 1. The position of Ancient Thouria

Except from epigraphic finds that mention the name of the ancient city, the site has been identified from the references of Pausanias (IV.31.1-2) who has given a brief description of Thouria, the location of Homeric Antheia. Specifically, he wrote that at nearby Phares, there were the grove of Apollo and a source of water in it. Phares were

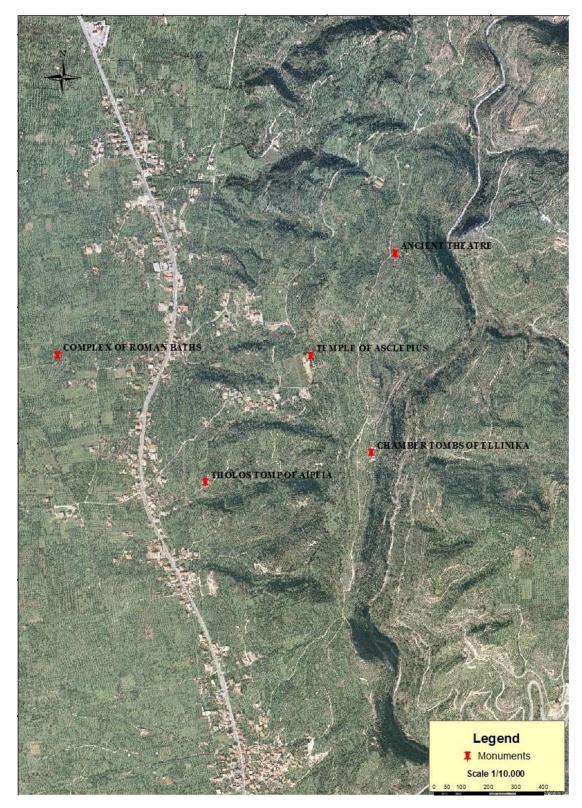
six stages away from the sea. The city of Thouriates, which in Homer's epics had the name "Antheia", was at a distance of eighty stages from Phares. (Papachatzis, 2004) On the other hand, Strabo (8.360) identified the city with Homeric Aepeia from the ancient Greek word αιπός that means tall or steep, as the city of Thouria was built on a high hill. Homer in the Iliad (I, 151, 293) refers to inhabitants of ancient Thouria as the "polyrrhenes" and "polyvoutai" inhabitants of "vathyleimos" Antheia. They belonged among the wealthy Messenians who were forced to abandon their territory after the end of the 1st Messenian War. The Lacedaemonian conquerors settled in the area during the last quarter of the 8th century B.C. and it seems that since then the new name "Thouria", meaning settlement's peak, started to displace the Mycenaean toponym. In the classical period Thouria became a "perioikos" polis, since the Messenian inhabitants that were loyal to the Lacedaemonians enjoyed certain privileges over the other Messenian subjects (Arapogianni, 2008-2009).

During the earthquake of 464 B.C. the inhabitants of the city attempted to free themselves from the Spartans. They allied themselves with the Messenian helots and found refuge at the fortified Mt. Ithome. At the end of the war, they were defeated by the Spartans and were expelled and settled in Nafpaktos with the aid of the Athenians. After the foundation of Messene in 369 B. C., Thouria was no longer dependent to Sparta and became a member of the free Messenian state. In 182 B.C. Thouria along with Pharai and Avia were detached from Messene and became members of the Achaean League as independent cities. After the historic naval battle of Actium in 31 B.C., according to Pausanias, Augustus gave Thouria again to the Spartans as a punishment because the Messenians had sided with his enemy, Antonius. It is not known, if during the retracing of the boundaries between Messenia and Laconia, which took place in the period of Tiberius in 25 A.D., Thouria was returned to the Messenians along with the region of Pharai. However, the coins of Thouria that were stricken during the period of Severus (193-217A.D.) bear the initial letters of the Lacedaemonians, thus presenting the inhabitants of Thouria as Lacedaemonians (Arapogianni, 2008-2009).

What's more, the position of the city at the site of "Ellinika" or "Paleokastro", above the present Antheia and at distance of two kilometres from the present Thouria, has been confirmed by epigraphic finds. Also, traces of prehistoric residence have

been identified, while a large Mycenaean necropolis has been excavated consisting of 16 visible chamber tombs, as well as a large tholos royal tomb with rich offerings on the eastern side. The acropolis of the classical period was never fully abandoned but continued to be inhabited in the roman times, in the medieval period and during the ottoman occupation. At the northern end of the hill, where the ancient acropolis is located, there is a visible part of the ancient fortification walls with rectangular fortification towers that are dated to the 4th century BC, built according to the isodomic system. Parts of the wall (fig. 1, appendix) are located both on the eastern and western sides of the acropolis. The city had a large theatre and a gymnasium, while a large rectangular water cistern is visible on the western side, below the acropolis (Arapogianni, 2008-2009).

Furthermore, other remains of buildings have been identified, as Ancient Thouria was a major city. The limestone quarry has been located 1 kilometer north of Thouria at the site of "Prionista" (fig. 2, appendix). In some places the traces of the ancient road from which the building material was transferred, are visible (Arapogianni, 2012). Remains of ancient olive presses were found (fig. 3, appendix), also, in the site of "Ellinika", which prove the olive oil production in antiquity (Arapogianni, 2016). It is undeniable that the area of Thouria is an extremely important archaeological site with a multitude of monuments, such as the chamber tombs, the temple of Asclepius, the tholos royal tomb, the complex of Roman Baths and the theatre (map 2).



Map 2. The monuments of ancient Thouria

# 2. ARCHAEOLOGICAL RESEARCH AND DESCRIPTION OF THE MONUMENTS

#### 2. 1. CHAMBER TOMBS IN ELLINIKA

On a steep and elongated hill, there is a place, which runs north-south and overlooks from the east the valley of the Pamisos River. Today it is called Ellinika, in antiquity, however, it was known as Thouria. There is no doubt that in antiquity Thouria was one of the most important centers of Messenia (Luraghi, 2008).

The main habitation appears to have been on the upper western slopes of the southern part of the long north to south ridge. On the upper slopes of Ellinika hill, on its eastern side, not far from its summit, there is a settlement of 25 very impressive visible Late Helladic chamber tombs (fig. 4). Most of the 16 recently excavated tombs had been previously looted, but even so one observes that they had a large size and impressive dromoi and stomia (Simpson, 2014). The Ephorate of Antiquities had to intervene and investigate the tombs, which had been looted from antiquity. So, the excavation of the tombs was started by Nicoletta Kokkotaki in 1987. Then, the excavation was continued by Georgia Chatzi- Spiliopoulou and Margarita Koumouzeli. In 1995 Xeni Arapogianni undertook the excavation and continues until today the excavation in the entire archaeological site of ancient Thouria.



Figure 4. Mycenaean chamber tombs at the site called Ellinika (http://ancientthouriaexcavation.gr/images/)

Notable information is that there are several elements that show that many of the tombs were used during the geometric times and in the classical era, either for ancestor worship or for habitation. What's more, according to residents' testimonies, tombs had also served as shelters in recent times. The tombs consist of main chamber, which in several cases, bears smaller chambers carved in its side walls. The main chamber, moreover, is usually rectangular or irregular, entered by means of a long corridor with slight inclination towards the mouth. The entrance of the tombs was built with dry stone. The tombs that were intended for officers or other people with a prominent position in the Mycenaean society had a great imposing entrance. There is a difference in the size of chamber tombs in Ellinika. This reveals the different social or economic condition of the dead. The tombs were destined for a family and the dead were buried directly on the floor of the chamber tomb or in rectangular pits that curved into the chamber, with their grave goods. The bones of the older burials were gathered at the edges of the chamber to create space for the next burials (Arapogianni, 2008).

The first official records are presented in 1965 where protogeometric vases were found accidentally in one of the chamber tombs (Themelis, 1965). Also, the first official records concerning the excavation of the tombs begin in 1987 in Mr Tsaglis' property. Chamber Tomb Tsagli 1 was investigated by the archaeologist Nicoletta Kokkotaki. Then the excavation was continued in 1989 by the archaeologist Georgia Chatzi-Spiliopoulou. Chamber Tomb Tsagli 2 is among the eight visible tombs of Mr Tsagli's property. During the excavation were found remains of human skull, portions of vessels, one female clay figurine and pottery of a later period. On the road that leads to the tomb, fragments of Mycenaean ceramics were found, as well as plenty of tiles, a few bones and the lower part of clay Mycenaean figurine. Chamber Tomb Tsagli 3 is located near the previous tomb. It was found that the tombstone of the door was destroyed from a building of a subsequent period. A pebble floor was revealed, from which it is concluded that during the period of the later Hellenistic years, half of the road of the Mycenaean tomb was destroyed, and its position occupied a part of a pebble courtyard of a house whose foundations are preserved. In this tomb were found fragments of ceramics of Hellenic times, tiles, a bronze hook and outside the tomb, in the northeastern corner, were found Mycenaean vessels. On

the floor of the burial chamber was found a completely empty pit. During the survey of Tomb 3, Mr Tsaglis delivered a whole clay ointment jar, coming from a tomb which was located 300 meters northeast of the Chamber Tombs. At this point, it was found the existence of an undefined shape and a small-size tomb, almost completely destroyed. From that position, a few bones of human skull and skeleton were collected, as well as two cups. The findings date the tomb in the middle of the 2nd century B.C. It is worth saying that during the cleaning around the Chamber Tomb 2, signs of another chamber tomb were revealed which was not visible until then. Chamber Tomb Tsagli 4 was excavated by the archaeologist Margarita Koumouzeli (Chatzi-Spiliopoulou, 1989). This tomb is carved in the natural rock of the area and it has a corridor that its length is longer than 16 meters. Besides the main chamber there is also a rectangular chamber inside the tomb. There is a stand along the northern side of the main chamber. Another similar stand is located in the second chamber in shape of  $\Pi$ . There, on the stands, were found only fragments of ceramics and vessels. Moreover, there was a pit on the west side of the main chamber which was found covered with a tombstone. This pit contained two burials, disturbed by the looters of the tomb. In the southeast corner of the main chamber, also, was found an empty pit. At a distance of 1 meter of it, was found half skull. In the first burial, under the bones, was found a golden ring with a bull-leaping performance, a second golden ring, beads and golden foils. Furthermore, were collected fragments and vessels from Athens, Crete and Rhodes. In the second burial, except from bones, there was found a bronze mirror with an ivory handle, a knife, a ring of copper and silver and fragment of a vessel. From all the evidence, it is concluded that the tomb probably belonged to an important person such as a local lord (Koumouzeli, 1989).

Chamber Tomb Ellinika 6 was excavated in 1992 by the archaeologist Georgia Chatzi-Spiliopoulou. This tomb is the second one to have been violated in Mr. Koutrafouri's property. It is a monumental chamber tomb with an east-west orientation like all the other tombs in Ellinika. Besides the central chamber, there is also a second one to the north of smaller dimensions and almost inaccessible. During the survey, pottery of Mycenaean, Protogeometric and Hellenistic era was accumulated, as well as a large amount of fragments, animal teeth and bones. A few human bones were found too (Chatzi-Spiliopoulou, 1992).

Another three chamber tombs were excavated by the archaeologist Xeni Arapogianni in 1995 under the supervision of the Ephorate archaeologist Evangelia Malapani. More specifically, Chamber Tomb Ellinika 7 or Tsagli 5 is preserved in a very good condition since even the dry stone that closed the mouth of the tomb was in its place. Only a few stones were missing from there. Across the floor of the chamber, were scattered bones and fragments of ceramic, damaged from the looting of the tomb. From the bonding of the fragments came various vases and a part of a clay figurine in Ψ shape. Also, there were found four clay female figurines, a faience necklace, a golden necklace and a large number of finest glass beads. Chamber Tomb Ellinika 8 or Tsagli 6 was revealed and its roof had completely dropped. The tomb was looted. There were a lot of fragments of ceramics, but from the bonding, vases emerged even from the protogeometric period. Two very oxidized copper pins were found too. Chamber Tomb Ellinika 9 or Tsagli 7 was at a higher level, on the same slope as the others, and had the same orientation. It had a large chamber but its roof was completely sunken. In the chamber was carved a shallow orthogonal niche, in which were found parts of classical pottery and three loomweights. On the floor of the chamber, also, there were three rectangular pits of graves and an irregular pit for the older bones. They were already looted from antiquity, so they contained only few bones. What's more, on the north side of the chamber there is another chamber with uneven flooring. This chamber was looted too, and the only things that were found was fragments of classical times, gold nuggets and two small golden foils with ivy leaves as a decoration. The interesting in this tomb is that the pottery that was collected is dated from the Mycenaean times to the Hellenistic period. Useful information is that after the end of the excavation, a shelter of wood and zinc placed in the tomb chamber to protect it from rainfall (Arapogianni, 1995).

The excavation in 1996, brought to light a large cistern mainly with litter in it, animal bones and minimal ceramics of late-Roman years. Also, *Chamber Tomb Ellinika 10 or Tsagli 8* was excavated. The grave has been robbed since antiquity. Its roof has fallen. The floor plan of the chamber is almost circular and the floor is flat. Near the mouth of the chamber were found the bones of two dead which were disturbed. There were still a few fragments of Mycenaean ceramics, as well as a fragment of an animal clay figurine (Arapogianni, 1996).

The excavation was continued and the next year, 1997, by the archaeologist Xeni Arapogianni. Two more chamber tombs inside the Tsagli property were investigated. The first one was Chamber Tomb Ellinika 11 or Tsagli 9. This tomb, also, was looted in antiquity. This is obvious from the damaged entrance and the large hole, which allowed the entry until recently, as well as from the engravings of words, letters and dates on the walls of the chamber. The door of the tomb is rectangular, carefully constructed, while the lintel is preserved in a very good condition. Scattered bones and few fragments of ceramics were found, while a whole vase was found near the northeast walls of the tomb. On the southwest side was found an empty shallow pit for the older bones. The second chamber tomb excavated the same year was Chamber Tomb Ellinika 12 or Tsagli 10. According to information, the tomb had been looted a few years ago. Looters had left objects of modern civilization inside the tomb. Among the stones of the entrance were found three copper arrowheads and many golden foils, which were apparently sewn on clothes. On the north side of the chamber, was found a rectangular stand. On its surface there are several circular or rectangular cavities. There were two pits for old bones. The tomb was disturbed and gave no finds, except from a few fragments of ceramics (Arapogianni, 1997).

The excavation was continued and was brought to light *Chamber Tomb Ellinika 13* or *Tsagli 11*. The tomb is monumental and has a central chamber and a side chamber on its southern side. Also, a very interesting decorative element appears above the door of the tomb. It is about a horizontal strip which is 1.80 meters long and 0.25 meters wide. This strip is decorated with ten relief discs. Along the northern side of the central chamber there is a carved stand. On the horizontal surface of the stand, four points had been carved, apparently to accommodate the legs of the deathbed which is a very useful element for burial customs of these times. On the south side of the chamber, was found a carved pit. There was collected only one human skull, scattered bones and a few thin golden leaflets. A remarkable element of the tomb is that there were found carved head restraints on both sides of the pit, obviously for the legs and the head of the dead. Apart from the main chamber, there is also a lateral chamber on the south side of the tomb. The two burials that found in it were looted (Arapogianni, 1998).

Moreover, Chamber Tomb Ellinika 15 was excavated in 2000. The particular tomb was found in Mr. G. Skartsilis property and it does not belong to the well-known group of Mycenaean tombs of Ellinika. The tomb is located west of the Mycenaean necropolis and although it has the same orientation with the previous tombs, eastwest, its entrance and its way are to the west. This is in contrast with the others who have their entrance and their way to the east. This tomb belongs to the monumental, hegemonic tombs and is the second largest of the excavated tombs. Chamber Tomb Ellinika 6 is the largest. Along the southern and northern sides of the tomb there is a carved stand. A door on the north wall of the chamber leads to another rectangular chamber. Both floors are flat and smooth. The complete revelation of its road was impossible, as it would have to stop the operation of the country road that the tomb's road runs straight through. The dry stone that blocked the mouth of the tomb had been destroyed and only the lower part was saved. There were a few findings including a stone vase and golden nuggets. There were found, also, a few and scattered fragments of ceramics. On the floor of the road, just outside the entrance, two burials were found without any offering. One of them, obviously, belongs to a child. The dead is placed in a contracted position with his head towards the mouth of the tomb. The second burial includes two dead in a contracted position, placed one on top of the other with the skulls again towards the entrance of the tomb (Arapogianni, 2000).

#### 2.2. SITE PANAGITSA

During the excavation period of 2007, LH' Ephorate of Prehistoric and Classical Antiquities of Messenia, under the direction of Xeni Arapogianni, revealed the imposing remains of retaining walls and remains of a large building, apparently of a public character. These were found on the west side of the hill of Ellinika, in the site «Panagitsa» of Aipeia, a rather inaccessible and thickly vegetated area where the archaeological team was led by Mr. Antonis Tsagklis, a native and permanent resident of the village Antheia, who is the antiquities' guard of the area (Arapogianni, 2008). There, among the dense bushes, the remains of a retaining wall were visible (Arapogianni, 2007).

It is worth saying that the place has been expropriated. The name of it is "Panagitsa" due to a small post-Byzantine church dedicated to Ypapanti or Panagitsa (Virgin Mary) (fig. 5), which is located in a short distance south of the ancient retaining wall. Among the ancient material used for the construction of the church, there are flywheels of columns, architraves, stone bricks, etc. Also, at the base of the high altar in the chancel, has been used flywheel of a Doric striped column (fig. 6, appendix). What's more, on the altar and around the temple, there were scattered architectural members, as well as a section of a striped semi-column (Arapogianni, 2007).



Figure 5. The little church of Panagitsa (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)

It is worth saying that a part of a large public building was discovered at the end of the excavation period, in 2007. The building is oriented east-west and it is built of large stone plinths made of off-white limestone. The tiles are of a laconic type and are preserved in good condition with the letter  $\Lambda$  written in some of them. The thick ash layer beneath the tile layer reveals that the building was destroyed by fire. According to the rich fragmentary pottery that was collected, the building is dated to the 4th century BC. During the same excavation period, another retaining wall was discovered. Between the two retaining walls the remains of a construction with steps was uncovered (Arapogianni, 2007). These two retaining walls held the terrace, on which there was a rectangular building. The excavations continued during the next year also and at the western end of the building were found two large pots made of

tile sections, which apparently used to collect water in later times, maybe in Christian times. Of particular interest is the revelation of a section of a stylobate at a distance of 5 meters south of the building. The stylobate belongs to a stoa (fig. 7, appendix) (Arapogianni, 2008).

It is noteworthy that in 2009 the excavation has become systematic under the auspices of the Archaeological Society of Athens and the direction of Xeni Arapogianni as before. The eastern part of the stylobate of the stoa was uncovered. A water duct (fig. 8, appendix) was uncovered too. It was constructed of medium size fluvial gravels in a compact construction made with great diligence. In two parts of the water duct two oval shaped holes are being formed for the settling of sediments or mud. Inside the destruction layer two parts of ceramic tiles with the stamp  $\Delta AMO\Sigma IOI$  (fig. 9, appendix) undoubtedly signify the public character of the buildings. From the Laconian type ceramic tiling of the building a large number of palmette antefixes of various types were found. Additionally, among the large number of good quality ceramic shreds that were collected from the soils of the stoa there are two stamped amphora handles from the workshop of  $\Sigma TYPA\Xi$ . The architectural features and the pottery that were collected date the stoa to the 3rd century BC (Arapogianni, 2009).

At a distance of almost 5 meters south of the stoa, is located a Doric building, the temple of Asclepius. The two steps are constructed of rectangular porous-blocks built in the isodomic system with an exergue plate in front and double cyma recta (kymation) on the lower side (Arapogianni, 2009). The temple consists of the pronaos and the cella. The two spaces are separated by a thick wall, which is damaged today. (Arapogianni, 2010) Also, inside the temple the floor is preserved in excellent condition. It consists of small white, black and red pebbles that are connected with each other with strong mortar. It is based on medium size pebbles. On the western part of the floor, a "treasury" was found (fig. 10, appendix) in situ cubic in shape and built-in the pebble floor (Arapogianni, 2009, 2010). "Treasuries" were usually placed inside the temples and constituted their formal safes. The upper part the "treasury" would receive a lid with a fissure for the throwing of coins inside. The lid would be of metal and would securely lock with double lock, the keys of which would be kept by trustworthy magistrates, usually the priests of the temple. The "treasury' of Thouria

bears on the upper surface a very well preserved inscription, dated to the late 4th – early 3rd century BC and consisting of 4 lines, where the names of the hierothytai (elected officials) are mentioned along with the name of the architect of the temple, which was  $\Theta EO\Delta\Omega PO\Sigma$ .

«ΕΠ ΙΕΡΟΘΥΤΑΝ ΕΠΟΙΗΘΗ ΑΓΙΑ

ΑΡΙΚΛΕΙΔΑΣ ΔΑΜΙΟΥΡΓΩΝ ΘΙΩ

ΝΟΣ ΑΛΚΑΝΔΡΟΥ ΚΑΛΛΙΚΡΑΤΗΣ

ΑΡΧΙΤΕΚΤΩΝ ΘΕΟΔΩΡΟΣ»

(Arapogianni, 2008).

Furthermore, within the temple were found, vertically placed, the limestone slabs from an offering table that end in lion's legs, and also parts of the horizontal slab of the table were found scattered in other areas in the building. Next to the offering table, in disturbed soils, a marble plaque with a relief representation of a Satyr in a cave was found (fig. 11, appendix). Moreover, outside of the temple and all around it, a very well preserved pebble floor was uncovered (fig. 12, appendix). It was constructed for the protection of the building from rain water (Arapogianni, 2009). The use of the terrace in later times testifies to the existence of the establishment of a wine-press (fig. 13, appendix) of the 6<sup>th</sup>-7<sup>th</sup> century A.D, lying against the western side of the temple, and partly resting of the crepis of the monument. A lot of ancient building material has been used for the construction of the wine-press. It consists of a paved area and large clay pith for the gathering of the must. Useful information is that in the wide open space, which is formed between the Ionic stoa and the temple of Asclepius, the excavation brought to light an enormous number of animal bones and fragments of ceramics. These are scattered throughout a layer 0.20 meters thick covering the entire surface of the outdoor courtyard. This layer except for animal bones and good quality pottery fragments contained a large amount of ash, while at two points the soil

was incandescent red with embedded animal bones, forming two piles of almost circular dimensions. They are probably two rough altars who were used in religious ceremonies (Arapogianni, 2012).

Additionally, during the excavation period of 2011 came to light the façade of the temple to the point where the entrance ramp is located (fig. 14). Also, burials of Christian times were found in simple pits bound by stones. The dead were placed supine with the head to the west and the arms to the chest, without findings. Essential information is that a limestone column was found which brought to the top a rectangular draft for the placement of the offering (anathema). On one of its sides there was an engraved teenage list containing the assignment to Hermes from the headmaster Antia. The inscription dates back to the 2nd century BC. To the left of the ramp along the facade of the temple three bases have been found in situ, in contact with the crepis, which probably bore inscribed steles. One of the latter was found in situ and bears a dedicatory inscription, according to which a couple, Aristophanes and Filotis dedicated to Asclepius and Hygeia the statue of their son called Filoxenos.

«ΑΡΙΣΤΟΦΑΝΗΣ

ΦΙΛΩΤΙΣ

ΦΙΛΟΞΕΝΟΝ

TON YION

ΑΣΚΛΑΠΙΩΙ

ΚΑΙ ΥΓΙΕΙΑΙ

**KOMATEY** 

 $\Sigma ANTA$ »

According to this inscription, the temple is dedicated to these two healing deities, Asclepius and Hygeia, whose cult was very popular in Messenia (Arapogianni, 2011).



Figure 14. Temple of Asclepius, the ramp(<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)

During the 2012 excavation season, the Doric temple dedicated to Asclepius and Hygeia was fully uncovered so that the whole monument came to light. The movable findings from the excavation were mainly ceramics of the Hellenistic period (4th – 2nd c. BC), among which many pieces of relief skyphoi of high quality can be distinguished, as well as pieces of antefixes with rosettes and two bronze coins. One of the coins belongs to Messene and it is dated to the 3rd century BC. Furthermore, there were found a number of bones and a small glass one. Of great interest is a ceramic black glazed sherd with part of a graffito, on which the letters ...  $\Lambda$ A $\Pi$ I.. are clearly distinguished (fig. 15, appendix), the inscription in its complete form was obviously «A $\Sigma$ K $\Lambda$ A $\Pi$ I $\Omega$ », thus constituting further evidence on the identity of the temple (Arapogianni, 2012).

#### 2.3. COMPLEX OF ROMAN BATHS

The complex of Roman Baths (fig. 16-17) is located in the position that called "Loutra" in Thouria, 10 km away from the sea. It is an important and extensive historical monument of the area. The site is below the Classical and Hellenistic settlement of ancient Thouria. It was surveyed in 2006-2008 as a part of a research between the Scuola Archeologica Italiana di Atene and the LH' Ephorate of

Prehistoric and Classical Antiquities. The monument is in excellent condition though still unpublished. The vaults are still preserved, except from the vault of the south wing, which has partially collapsed. Also, the lower part of the monument is buried under sediments, due to the flooding of the Pamisos River (Vitti, 2013).

The rooms were all the same height except from the frigidarium, which was covered by a cross vault 2,25 meters higher. The building had cold and heated rooms that were separated by a wall. So, the complex was divided into two halves. The frigidarium was a rectangular room with two extensions to the north and south. Moreover, two doors connected the frigidarium with the heated section. Most specifically, two doors connected the frigidarium with a corridor, which provided access to most of the heated rooms and with the tepidarium, which was not heated to high temperatures. The building had, also, the caldarium that was a central hall with two alvea, which were hot pools. There were two another rooms in the building that were nearly square and one another room that it is worth to mentioned. It was not directly connected with the heated rooms and it had a very low opening on the east side which shows that a passageway was located at a different level from the other rooms that used by public. From this, it can be suspected that it was used by bathers (Vitti, 2013).



Figure 16. Outside view of the Roman baths, (http://ancientthouriaexcavation.gr/images/)



Figure 17. Inside view of the Roman Baths, (http://ancientthouriaexcavation.gr/images/)

#### 2.4. THOLOS TOMB

According to the archaeologist of the Ephorate of Antiquities, Mrs Evangelia Malapani, the tholos tomb (fig. 18) is early Mycenaean and it is located in the position Raxi of Aipeia. It is an impressive royal tholos tomb and it was excavated by the archaeologist, Agelos Liagouras in the 1980's. It has diameter of 10 meters and although it was truly looted, there were found valuable objects. Unfortunately, the data of the excavation has not been published. However, it is known that there were found ceramic vessels, golden jewelries and relief plaques of the classical period (fig. 19, appendix).



Figure 18. Mycenaean tholos tomb, inside view (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)

#### 2.5. ANCIENT THEATRE

The most recent excavation research in the archaeological site of ancient Thouria is in the ancient theatre. The excavation started in 2016 where remains of the ancient theatre were discovered, in the site called Ellinika. The theatre is oriented to the west. It is constructed of whitish sandstone limestone and is dated to the early Hellenistic period. The excavation brought to light part of the strong retaining wall of the koilon, the wall of the left parodos and a part of the circular orchestra of the theatre (fig. 20, appendix). The first row of the stone seats of the koilon was found in situ. In front of the seats was found the corridor for the movement of the spectators around the orchestra that was very well preserved. A large rectangular drainage duct for the rainwater runs around the orchestra was revealed too. The duct is of stone, open and preserved in a perfect condition, while in situ was also found a covering slab, which was designed to expedite the movement of the spectators over it. In the cavity behind the preserved in situ seats, a large number of fallen stone architectural members and parts of seats came to light (http://ancientthouriaexcavation.gr/en/2016-2/, last visit 21/12/2017). The excavation was continued in the summer of 2017 and brought to light the entire perimeter of the orchestra of the ancient theatre, the diameter of which is 16.30 m (fig. 21) (http://www.archaiologia.gr/blog/2017/10/20/στο-φως-το-θέατροτης-αρχαίας-θουρίας/, last visit 21/12/2017). The excavation has not yet been completed and clearly, the findings of the researches will be a major event for the ancient history of Messenia (http://ancientthouriaexcavation.gr/en/2016-2/, last visit 21/12/2017).



Figure 21. View of the ancient theatre (http://www.archaiologia.gr/blog/2017/10/20/στο-φως-το-θέατρο-της-αρχαίας-θουρίας/)

#### 3. CULTURAL ENVIRONMENT

#### 3.1. PROXIMITY TO OTHER ARCHAEOLOGICAL SITES

Ancient Thouria is located in the prefecture of Messenia, a place full of history and archaeological sites (map 3). It is undeniable that all over the region, the visitor is able to find, to explore and to experience monuments and history. Nestor's Palace is undeniably the most important site of Messenia fully enhanced so far. It is located in Pylos and it is no doubt that is the best preserved of the Mycenaean palaces with 105 ground floor apartments. The palace reached the peak of its prosperity in the 13th century B.C. (http://odysseus.culture.gr/h/3/gh351.jsp?obj\_id=2562), last visit 21/12/2017). Along with the nearby and recently discovered palatial settlement of Iklaina and the numerous tholos and chamber tombs in its vicinity, it offers magnificent testimony to the Late Hellenic period. The archaeological site of Ancient Messene is located 30 km north-west from Kalamata and it is a significant ancient city in terms of its size, form, and state of preservation. Ancient Messene was built after Ancient Thouria, in 369 B.C. by Epameinondas from Thebes and became the new capital of liberated and independent Messenia

(http://www.ancientmessene.gr/messenian history.php, last visit 21/12/2017).

Moreover, castles have a special position in the prefecture as there is the Castle of Kalamata, the Castles of Methoni and Koroni and the Castle of Pylos. The Castle of Kalamata is located in the north-west section of Kalamata. It was founded in the Byzantine period, but its present form is due to the Franc Prince, Godfried A' Villehardouin in the beginning of the 13<sup>th</sup> century

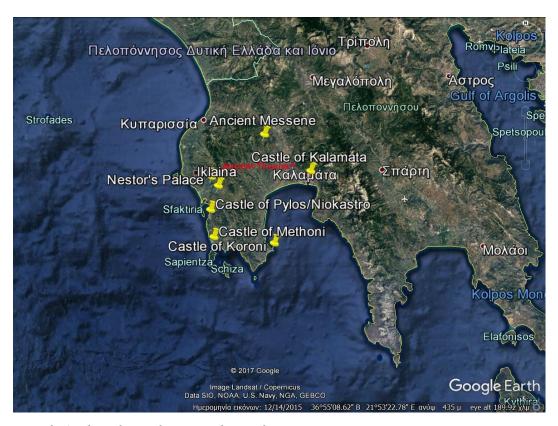
(http://odysseus.culture.gr/h/2/gh251.jsp?obj\_id=19756), last visit 21/12/2017). The Castle of Methoni is one of the most important fortifications in the Greek area with an excellent natural harbor (http://odysseus.culture.gr/h/3/gh351.jsp?obj\_id=7499), last visit 21/12/2017). Furthermore, the Castle of Pylos or the fortress of Niokastro was built by the Ottoman Turks in 1573. In 1686-1715 it was under Venetian occupation and in 1770 it was occupied by the Orlov brothers. In 1821, the Greeks conquered it,

but in 1825 it was surrendered to Ibrahim

(<a href="http://odysseus.culture.gr/h/3/gh352.jsp?obj\_id=19782">http://odysseus.culture.gr/h/3/gh352.jsp?obj\_id=19782</a>, last visit 21/12/2017). In addition to these, there is one more Castle, the Castle of Koroni. It was built during Byzantine times, occupying the key geographic location where, according to Pausanias, the city of ancient Asini was located

(http://odysseus.culture.gr/h/3/gh352.jsp?obj\_id=19758, last visit 21/12/2017).

All these historical places constitute major sightseeing attractions; as tourism has significantly increased during the past five years in Messenia, all the aforementioned heritage assets induce cultural tourism in the region, of which ancient Thouria, if properly enhanced, will profit greatly.

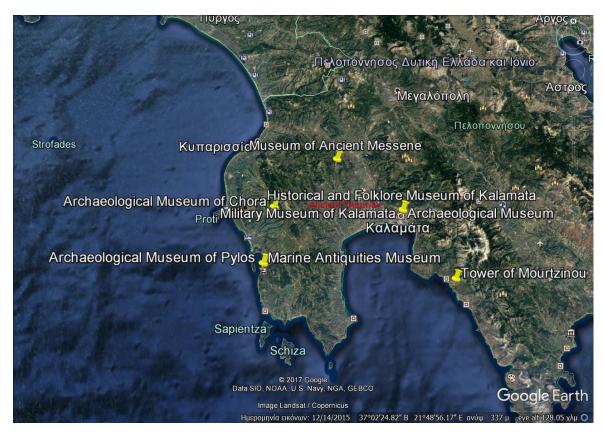


Map 3. Archaeological sites in the prefecture

#### 3.2. PROXIMITY TO MUSEUMS

Apart from the archaeological sites, there are museums in Messenia that deserve visitors' attention (map 4). One of them is the Archaeological Museum of Messenia. It is located at the heart of the historic centre of Kalamata, where the Municipal Market of the city used to be. The exhibition aims to display the antiquities of Messenia from the Prehistoric times until the Byzantine era and it has exhibits from the four provinces, Kalamata, Messene, Pylia, Trifylia (http://odysseus.culture.gr/h/1/gh151.jsp?obj\_id=3440), last visit 21/12/2017). Another one is the Military Museum of Kalamata in the historic centre of Kalamata. The museum presents the latest Greek history from the Revolution of 1821 to the present day, through texts, photographic and audiovisual material (http://www.kalamata.gr/episkeptes/aksiotheata/mouseia/279-stratiotikomouseio.html, last visit 21/12/2017). What's more, for someone interested in the folklore of the area, there is the Historical and Folklore Museum of Kalamata. It is located in the historic centre too and it hosts agricultural objects, rural culture crafts, textiles, pottery, testimonies of urban professions, typography and bookbinding. It also presents costume elements, including traditional costume of Kalamata (http://www.kalamata.gr/episkeptes/aksiotheata/mouseia/278-laografikomouseio.html, last visit 21/12/2017). Moreover, visitors to the archaeological site of Ancient Messene should not miss visiting the Museum of ancient Messene. The Museum hosts findings exclusively from the excavations that took place in Messini (http://odysseus.culture.gr/h/1/gh151.jsp?obj\_id=3471, last visit 21/12/2017). The archaeological museum of Chora, also, is located in the municipality of Pylos-Nestor. It includes collections of pottery, small finds from cemeteries of the Mycenaean period and finds from Nestor's palace (http://odysseus.culture.gr/h/1/gh155.jsp?obj\_id=3308, last visit 21/12/2017). In addition, Kardamili hosts one of the most important fortification complexes of Mani. The tower of Mourtzinou turned into a museum in order to promote the cultural identity of Mani (http://odysseus.culture.gr/h/1/gh152.jsp?obj\_id=14681, last visit 21/12/2017). The New Archaeological Museum of Pylos, also, is located in the building of Mezonos of Niokastro and it is a continuation of Antonopouleio

Archaeological Museum of Pylos, which until 2014 functioned in the city center (https://www.pylos-museum.gr/μουσείο/ιστορία/, last visit 21/12/2017). Furthermore, the first Marine Antiquities Museum in Greece which operates from 2012 is located in a small distance of the previous one, in the "Pasha Building" (https://www.pylos-museum.gr/μουσείο/μουσείο-ενάλιων-αρχαιοτήτων/, last visit 21/12/2017).



Map 4. Museums in the prefecture

#### 3.3. PROXIMITY TO RELIGIOUS SITES

It should be mentioned that within the archaeological site of ancient Thouria there are churches of historical significance. According to Mrs Barbaritsa, the archaeologist of Ephorate of Antiquities, there is churches of major importance like Panagitsa-Ypapanti. It is a Late Byzantine church of the 13<sup>th</sup>-15<sup>th</sup> century with frescoes of the

17<sup>th</sup>-18<sup>th</sup> century. Also, ancient building materials in second use were found as it was mentioned in the previous chapter. Secondly, the Monastery of Ellinika which has frescoes of the 13<sup>th</sup> century with representations in the top of the columns. It is preserved in good condition and it is in operation until today (Kakouros, 2012). In addition to these, there is the church of Saint George in Aipeia. It is important that the monument has strong western influences, mainly in the context of the north and west side windows. It is dated in Frankish-Byzantine period around the 13<sup>th</sup> century (Kakouros, 2012). Furthermore, in the area, near the Complex of Roman Baths, there is also the ruined Byzantine church of Saint Nikolaos, at the location "Gerania" (Kakouros, 2012).

#### 3.4. STATISTICS

According to the Greek Tourism Confederation (SETE), it is obvious that the international tourism arrivals at Kalamata's airport constantly increase. The measurements presented in the table below (table 1) and they are from 2013 and 2014, month by month, from January until December. The total arrivals in 2013 were 57.943 and in 2014 were 109.107. The arrivals are presented below month by month. The table shows that during the summer months, the arrivals in 2014 did not simply increase, but doubled from the arrivals in 2013. Also, during the winter months there is still a greater increase in arrivals. For instance, in October of 2013 have been recorded 3.985 arrivals and in October of 2014 have been recorded 11.979 arrivals. But also, in November of 2013 have been recorded 781 arrivals while in November of 2014 have been recorded 9.552

Also, SETE presents a data about the air arrivals in the summer of 2015 and 2016. At Kalamata's airport, specifically, there is obvious the increase of the arrivals. In 2015 there were reported 128,398 and in 2016 there were 140,655 slots. In 2016 Kalamata's Airport has been scheduled 12,277 more arrivals than in 2015, so there is an increase of 10% ( Ikkos et al, 2015).

INTERNATIONAL TOURISM				
ARRIVALS AT KALAMATA'S				
AIRPORT				
Year	2013	2014		
January	0	4		
February	2	237		
March	880	1.344		
April	1.934	2.641		
May	5.351	8.320		
June	10.859	17.440		
July	11.986	20.838		
August	11.616	20.808		
September	10.549	14.900		
October	3.985	11.979		
November	781	9.552		
December	0	1.044		
Total	57.943	109.107		

Table 1. International tourism arrivals at Kalamata's airport, year 2013-2014

More specifically in the archaeological field, according to ELSTAT, official statistics show that the admissions to the archaeological sites of Messenia increase year by year, from 2010 until 2016. It is obvious that many visitors choose to discover the sites of Messenia and this is going better and better year by year as the records show. The number of admissions is almost doubled in recent years. The statistics from 2010 are listed in the table below (table 2). It is impressive that within 6 years the increase is so great. The admissions to archaeological sites of Messenia in 2010 are about 23.506 and in 2016 are about 140.257.

DATE	TOTAL
2016	140.257
2015	80.167
2014	75.597
2013	54.973
2012	60.523
2011	31.553
2010	23.506

Table 2. Admissions to archaeological sites of Messenia, 2010-2016

From all the above, it is concluded that tourism in Messenia has increased greatly and this is due to the completion of the Athens-Kalamata new national road, in the harbor and the airport of Kalamata. The above statistics show in detail the increase in arrivals at the airport and the increase in the admissions to the archaeological sites of the entire prefecture. With these results, it seems that Messenia is a pole of attraction for many tourists. The records are already encouraging for the future as, with the proper promotion of the prefecture, the statistics will surprise more and more. So, an archaeological site such as ancient Thouria can offer even more interest to the visitors of Messenia and at the same time many economic benefits in the surrounding area.

#### 4. MANAGEMENT PROJECT

#### 4.1. PURPOSE OF THE PROJECT

Ancient Thouria is a very important and remarkable site of Messenia. According to the above, a whole city is revealed and all the building remains can prove this. However, it is still an unexploited archaeological site that has to receive the value it deserves. It is undeniable that the management and the enhancement have to become the primary goal to promote the historical and the archaeological value of the area as a whole. Clearly, the site needs enhancement projects that will have long duration, efficiency and sustainability. The priority lies with the protection, safekeeping and management of the archaeological site and then with its enhancement and valorization in various ways such as alternative tourism, seminars in the field, guided tours, educational programs, experiential tourism linked to local products and other ideas.

The procedure that is followed in this project is based on the official records of ICOMOS for the management of cultural heritage and cultural tourism. More specifically, the goals of the International Cultural Tourism Charter are the facilitation of those involved with heritage management and tourism industries to reveal the importance of heritage and enhance the culture of host communities, the encouragement of a dialogue between conservation interests and the creation of management projects for development (ICOMOS, 1999).

#### 4.2. PATHOLOGY

The archaeological site of Ancient Thouria is a beautiful place full of history. Unfortunately, there are weak points of the site that should be improved. The problems are noticed below. The analysis and possible solutions are presented in the following chapter.

- Difficult access
- Lack of signs
- Lack of shelters
- Lack of durable fences
- Lack of guards and security systems
- Legal issues regarding expropriation
- Absence of information
- Looting
- Disintegration and destruction of archaeological remains

- No response in case of natural or man-included risk
- No use of new technologies
- Incomplete organization and enhancement of the site
- Lack of alternative activities
- No financial benefits from the site
- Few sponsors for archaeological excavations

#### 4.3. MANAGEMENT AUTHORITY

The first and foremost problem about ancient Thouria is that the archaeological site is not fully expropriated. It must be clearly pointed out that the chamber tombs are located in civilians' properties and this makes difficult their full disclosure. Olive trees grow among the tombs and it should be emphasized that with owner's goodwill some chamber tombs were excavated. To solve this problem and to manage the site correctly, it should be created a management authority for this archaeological site, exclusively (ICOMOS, 1999).

This management authority should be composed of the following entities. This authority should prevent delays, implement the management plan and, most importantly, to manage all these have to cooperate with entities such as the Ephorate of the Antiquities of Messenia, the excavation team and of course the municipality. The Ephorate of the Antiquities should be aware of the actions in the field and there should be permanent cooperation as its consent is valuable. The excavation team will help the management authority with the information about the history of the excavations, the archaeological records and the opening of the paths. The municipality bears a mention of the site in its internet site, but it definitely deserves a more detailed account. Also, this management authority has to find sponsors and to communicate with local agents such as, the Society of Friends of Ancient Thouria. The action of this latter agent has to be stressed, as it helps the excavation works, supports the research and finds means, management and supply of funds for the preservation of the ancient monuments. Furthermore, the new management authority should coordinate its actions with the Forestry Department, the

Police Force and the Fire Service. The last one could give advice for the right and appropriate fire-fighting equipment and could take over the installation of it. The Police Force will reinforce the area with patrols and direct intervention and the Forestry Department will inform the management authority about forestry issues as well as about the expropriations ( $\Delta IA\Pi\Lambda A\Sigma I\Sigma$ , AX).

#### 4.4. MANAGEMENT SOLUTIONS

The access to the site is very difficult because of the dirt road (fig. 22). Some parts of the road are cemented but even this is full of puddles (fig. 23). So, the road should be completely facilitated with a cement pavement. In this case, the site does not need asphalt because it will not be in harmony with the natural landscape.



Figure 22. The dirt road (photo by S. Kalogeropoulou)



Figure 23. The cemented road full of puddles (photo by S. Kalogeropoulou)

Another reason for the difficult access to the place is the insufficient signposting. Of course, there are some signboards but the site is big enough and it needs more of them to help the visitor find the archaeological site easily. Descriptive signs are needed too.

What's more, durable shelters should be constructed to protect the archaeological monuments. The site of chamber tombs of course has shelters but they are of a temporary character and have to be replaced with new better ones. Shelters have to be placed also over the complex of Roman Baths and over the tholos tomb, protected from the weather conditions only by nylon so far (fig. 24). There is a major problem with the rain water that passes though nylon and destroys the monument. Also, an improvement to the entrance as well as a restoration study of the monument are appropriate as the situation gets worse year by year. Only the site of Panagitsa with the temple of Asclepius has good quality shelters.



Figure 24. The nylon protects the tholos tomb (photo by S. Kalogeropoulou)

Then, the monuments need durable fences to be protected from the animals, but even more, from people. It is undeniable that in the place have been noticed many incidents of looting. Again, only the site of Panagitsa with the temple of Asclepius has remarkable fencing.

Moreover, security doors are needed as well as guards for this notable site. The job of guards is very important because they will protect the site of many dangers. The inhabitants of Thouria know about the historicity of the area and they are willing to help the competent services as well as to voluntarily protect the area until there are official guards and security systems.

It would be useful to install a lighting system such as modern solar energy projectors as they do not require wiring so that during night hours any movement can be felt within the space. These projectors should also be equipped with motion sensors for better results. Micro-cameras could also be used to control the area, which should be checked regularly by a guardian. In the future, could also be used drones from the guardians for better surveillance of the site ( $\Delta IA\Pi \Lambda A\Sigma I\Sigma$ ,  $\Delta X$ ).

What's more, fire protection is very important. Every year, the fires in the countryside cause a variety of environmental problems. It should be noted that the summer of 2017 a fire broke out but fortunately with the early intervention of the Fire Service

the fire was extinguished. Therefore it is necessary to construct a terrestrial buffer zone around the archaeological site, to create an emergency plan for the immediate and safe escape of the public as well as to control the construction works at a distance around the archaeological site and to prohibit the installation of buildings that increase the risk of fire. Also, early fire detection systems, water sprinkler systems, as well as manual fire extinguishers should be installed. The patrol of firefighting vehicles in the area is particularly necessary during the summer months ( $\Delta IA\Pi\Lambda A\Sigma I\Sigma$ , AX).

Furthermore, consolidation works are necessary. It is worth mentioning that during the winter of 2014, in the position of "Panagitsa", after intense rainfall, occurred the phenomenon of the fall of a large boulder at the eastern boundary of the excavation site (fig. 25). The fall of the boulder caused disasters making the excavation more difficult. Catastrophic phenomena are due to the instability of natural slopes and occur in the form of small or large rock masses (Ladas et al, 2015). In some spots special nets should be placed to keep antiquities in place, as well as tall and resistant barbed wire in more dangerous spots. Also, consolidation works have to be undertaken for the case of an earthquake. Of course, this work should be preceded by a study-simulation of damage to more effective protection of antiquities ( $\Delta IA\Pi\Lambda A\Sigma I\Sigma$ , AX).



Figure 25. The fall of a large boulder at the eastern boundary of the excavation site (photo by paper "Geological neotectonic conditions and destructive phenomena at the archeological site of Ancient Thouria")

Apart from these, there is the environmental pollution. For this reason, researches and measurements are necessary. The archaeological site is located next to the national road and the exhausts of the cars may be harmful to the monuments. Factory exhausts gases from Megalopoli may also affect them. The exhaust emissions must be controlled and to be within the permissible limits. What's, more, the proper conservation of the monuments with regular inspections is needed. This work requires qualified staff and proper organization. Although it is a costly process, a policy of protection is required for objects exposed to atmospheric conditions.

#### 5. ENHANCEMENT SUGGESTIONS

#### **5.1. PATHS**

After the organization and the management of the site, the enhancement is the next step of this project. The goal is to form the space appropriately so that the visitor receives a complete picture of it. A necessary step is tracing paths within the archaeological site. For accomplishing this, the location of the monuments, the distance between them and their correct presentation should be taken into account. Essential is the contribution of the excavation team as it could properly indicate the course of the paths. The formation of the paths should be done carefully so not to cause any damage to the monuments and perhaps to other remains of the ancient city  $(\Delta IA\Pi \Lambda \Delta \Sigma I\Sigma, AX)$ .

At first, the paths could follow the existing dirt road after being smoothed first. A path could be proposed and present the entire archaeological site and other different paths for each monument separately, without however, the different tracing in the archaeological site. This is in order to ensure the integrity of the ancient remains. At a second stage, however, because the space is large enough it would be useful to study the area and to have paths that will reduce the distances between the monuments. For best results, it is proposed to work with different specialties. There are physical difficulties, constructional difficulties as well as issues of proper designation of space.

So, certainly an interdisciplinary collaboration would be necessary ( $\Delta IA\Pi\Lambda A\Sigma I\Sigma$ , AX).

It is clearly important that there should be signs indicating the road, garbage bins, benches for rest as well as some small areas for chemical toilets. Furthermore, chemical toilets would be more elegant to be invested with wood to have the necessary harmony with the natural environment. In the future cycling paths should also be considered. Last but not least, small vehicles are recommended. Of course, there is something that needs to be studied as there are specific needs in respect to road surface and most importantly, because they may be very expensive to buy and maintain.

#### 5.2. MODERN CONSTRUCTIONS

It is very important to have the archaeological site organized but connected with the natural surrounding area. Modern construction should be done without affecting the harmony of space with the environment. Most of the modern buildings are above to the national road, which does not directly affect the aesthetics but also the functionality of the space.

Any intervention should be better applied somewhere easy for visitor to find it, maybe near the national road, accompanied by appropriate and clear signposting. A suggestion is to place a small info-centre and ticket booth near the Complex of Roman Baths. The place is facilitates the visitor as it is located at a small distance of the national road and it is combines the archaeological monument as well as a Frank-Byzantine monument which is in close proximity, the church of Saint Nikolaos. The info-centre could be for the sale of tickets, information for the public, some informative brochures for the archaeological site and maps with path mapping. Also, there could be provided a leaflet with information on other monuments, museums and archaeological sites of the broader region. This brochure would help to highlight the prefecture, in general, as there would be a map with points, opening hours and data for each space separately. Furthermore, next to the info-centre, there could be a small

cafe and a parking lot. These buildings that referred above, in the first phase, may be wooden constructions. In the future, there could be placed a pavilion with the local products of the region such as olives, citrus fruits, grapes, oil and figs. This is something that would stimulate touristic satisfaction.

Again, the expropriation of the site would give a swifter outcome for all of this, but for now a long-term leasing from the landowners could provide a solution. In the archaeological site, also, the intervention that is necessary is a central security control provided with remote sensor controls and cameras for the guards. These have to be simple, preferably made of wood. A second suggestion is to place the info-centre and ticket booth near the church of Saint George in Aipeia which, also, located next to the national road. However, the most prevalent suggestion, the most functional and the one that is followed in the GIS below is the placement of all these structures near the church of Saint Irene. After studying these three suggestions, by far the most suitable area for these interventions is the last area as it is next to the national road and from there everyone with a use of a map can easily and quickly find the monuments. There are also signs already at that point indicating the road to the monuments. (fig. 26, appendix)

### **5.3. SIGNS**

Signposting is very important for the enhancement of the space. It is a way of properly guiding the visitors and informing them. Descriptive signs furthermore teach and provide useful information and commentary from scientists. Different colours for different chronological eras would be a plus, as the visitor could thus have a clear idea about the development of the site within time. Clearly there should be sufficient marking on the site as it is quite large. It would be useful to have signs with the next monuments (fig. 27) as well as arrows that will point the way. Informative signs with historical and archaeological information are necessary to be placed in every monument of the archaeological site. It is important for the visitor to receive information about the site without a very detailed quotation as it can become tedious. There should still be signs showing the exit from the site as well as signs for the toilet spaces.



Figure 27. An example for signs (photo by S. Kalogeropoulou)

## 5.4. ARCHAEOLOGICAL PARK

The archaeological site is rich not only in historical and archaeological finds but also in vegetation and a wonderful natural landscape. It is a place for tranquility and pleasure and certainly its transformation into an archaeological park would greatly help to better present and enhance the space. With this development, there is no doubt that the information is absorbed in a pleasant way. The visitor is guided by the peculiarities and the beauty of the natural landscape, its geological history, the flora and fauna of the area, its traditional life, as well as by the role that all these elements played in the shaping and historical fortunes of the monuments. Apart from the signs for the archaeological and Byzantine monuments of the site, it would be interesting to place signs referring to the vegetation and generally to the nature of the area. For example, a signboard could be placed near the stream Xerilas (Tzirorrema) with information about it. Of particular natural beauty are the mountainous volumes that surround it.

Moreover, signs referring to animals and birds that meet in this area could be placed. It would also be useful to indicate which species existed since antiquity and are thus, endemic and which ones were imported. The reason is for the visitor to get a more complete view of the area because it offers plenty of information. This could

undoubtedly helps the region's tourism. Those who love walking in nature would appreciate it a lot. A remarkable similar example of an archaeological park in Greece is the Dion Archaeological Park in the prefecture of Pieria. It is a large place with ancient sanctuaries, theatres, baths, Macedonian tombs, mosaics and villas. It has lush vegetation, trees and the river Vafira that flows through it.

### 5.5. NEW TECHNOLOGIES FOR THE ENHANCEMENT OF THE SITE

The use of new technologies contributes to the better understanding of the site by the visitors. Through mobile phones and tablets someone can be guided, see the monuments and read the information more easily and quickly. The design and creation of a mobile application that will play the role of a tour guide is recommended. This application could be offered to users in the entrance along with their tickets. The main idea is to offer the users the ability to select a monument or a descriptive sign and, by placing the device in front of the monument or through a QR code, to gain extra information. After this, a menu with choices will be available on their screens. By selecting the first choice, visitors could see more historical and archaeological information about the monument. The second choice of menu could have photos from the excavation. The third option could present short videos showing the construction and the conservation processes. The last two options especially are believed to be able to attract the interest of the visitors but also to give them a chance to learn something new.

Another application for mobiles is the navigation maps that could be created, which will indicate the paths, the signs and the location of the monuments, the location of chemical toilets, the exit and even more the location of the visitor at that time. The implementation of GPS on mobiles is essential for the good operation of the application.

Still, it is proposed to digitally represent the monuments and all the movable finds and other evidence. This material will be gathered in a well-designed guiding context that everyone can explore ( $\Delta IA\Pi\Lambda A\Sigma I\Sigma$ , AX). This can be done on screens that will exist in the info-centre. It is suggested that the three-dimensional modeling of the

monuments be created in order to create a program of reconstruction of the archaeological site in the time of its peak, in the Mycenaean period and later, before the foundation of ancient Messene in 369 B.C. For example, it would be very interesting to present the temple of Asclepius in its perfect form.

Then, it would be useful to placed screens, like big tablets, in the info-centre, with photos from Ancient Thouria, videos as well as from the other proposed archaeological sites and monuments of Messenia. In these tablets it could be interesting to be presented games for the public. These games could be in the form of question-answers as well as multiple choices. In these screens, also, it would be useful for the development of the site to have a questionnaire that the visitor could complete. With this, the management authority could know the visitor's view of the archaeological site, what they liked and what they would still need to be fully satisfied.

In order to promote the site, also, it would be advisable to place screens in key parts of Kalamata, such as the Town Hall and the Cultural Centre. It could improve the already existing website with more photos and information about the area as a whole, how the visitor can spend the time as it will be promoted as a recreation area. Information about the paths should be as well as the opening hours. The goal is to create an intimate and friendly internet space that everyone wants to explore closely. An interesting example is the official site of the Dion Archaeological Park. It is really impressive, as it has on-line tour with navigation map, suggested paths, a big menu with all the monuments and panoramas of them, videos, and photographs even aerial photographs. This is a website that excites and creates the desire to explore not only by the computer but also closely.

Consequently, the use of new technologies may be proven to be the proper solution for such an extended site. The adaptation and embodiment of these innovative technological solutions is possible to provide the archaeological site of Ancient Thouria with more popularity and increased number of visitors and, subsequently, with sufficient income resources.

#### 5.6. THE USE OF GIS

As it mentioned above, new technologies reinforce the enhancement of the site. The use of a system like geographic information system (GIS) offers new possibilities in the management and enhancement of archaeological sites. For this reason, it was also used in this thesis.

A geographic information system so, is a computer-based system that provides four sets of capabilities to handle georeferenced data which are the data capture and preparation, data management, data manipulation and analysis and also data presentation. This implies that GIS user can expert support from the system to enter (georeferenced) data, to analyse it in various ways and to produce presentations, including maps, from the data. This would include support from various kinds of coordinate systems and transformations between them, options for analysis of the georeferenced data, and obviously a large degree of freedom of choice in the way this information is presented (Otto Huisman et al., 2009).

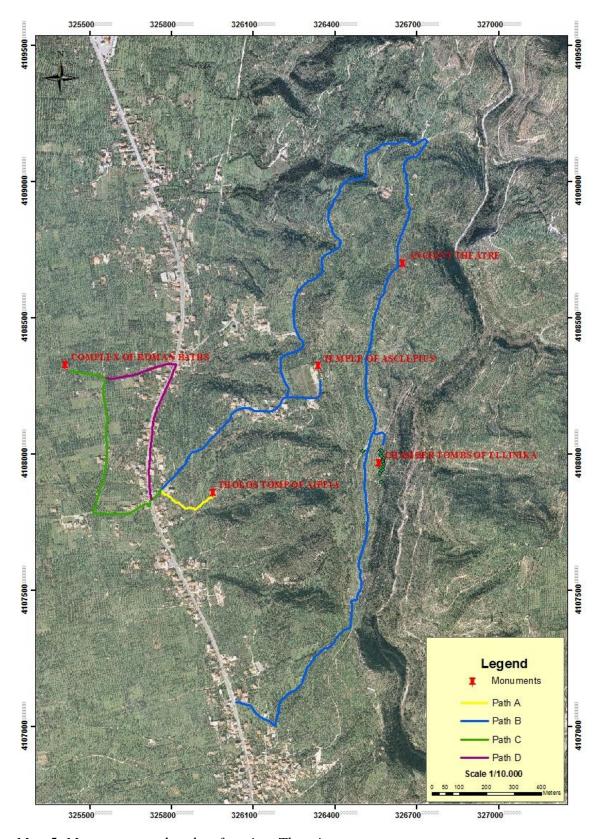
Nowadays, application of GIS analysis is fundamental part of the archaeological routine, especially associated with landscape archaeology (Malaperdas et al, 2018). Since 90's archaeology failed to interpret ecological data as a result of historical processes, limiting itself to the analysis and representation of 'traditional' survey results, statistical and distribution of pottery or sites, without merging them with environmental data (Nicola Gabellieri et al., 2015).

Over the past few years, archaeological applications of GIS have exposed an interesting relationship between the limits and generation of archaeological theory and those of GIS technology. Current GIS software offers new and exciting ways of managing, visualising and analysing spatial data. GIS and Archaeology are totally connected. It is undeniable that GIS gives new opportunities to archaeologists and even more, to managements of cultural resources and if they use it in appropriate way, it is sure that it can provide them integrated results in their researches. So, considering the above, it is undeniable the valuable use of this system.

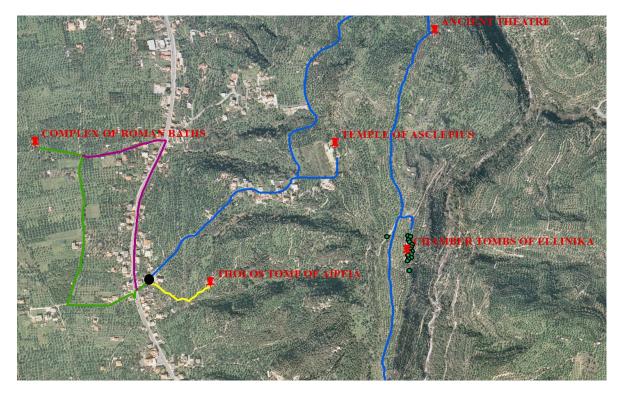
In this thesis, the software ArcGIS is used to demarcate the monuments of the archaeological site, to define paths and to create a map for the Chamber tombs with

their database. In the map below (map 5) are distinguished the monuments with red colour and the four paths. Path A has yellow colour and presents the path for the Tholos tomb. Path B has blue colour and presents the path for the Temple of Asclepius, the ancient theatre and the Chamber tombs. Path C has green colour and presents the path for the complex of Roman Baths as well as path D. The last one, however, has purple colour and presents a second path for the complex of Roman Baths from the national road. In the second map (map 6) the info-centre is marked with a black dot. There is the church of Saint Irene and all the paths start from this place. Moreover, there are some signs over there that facilitate the visitors even now.

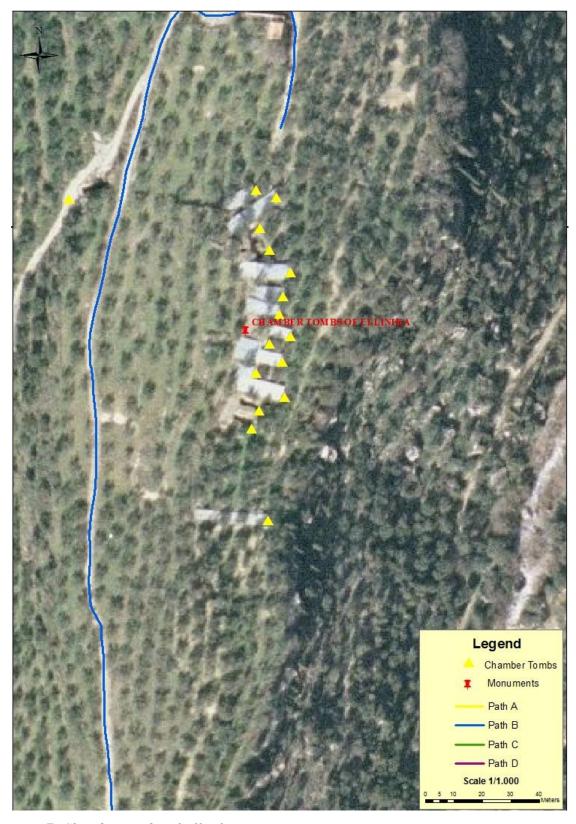
The number of the tombs is detected easily in another map (map 7). The databases of them present a lot of information about the tombs. Information about the distance, the excavation year and the findings are referred.



Map 5. Monuments and paths of ancient Thouria



Map 6. The info-centre with the black dot



Map 7. Chamber tombs of Ellinika

# DATABASE OF CHAMBER TOMBS

CHAMBER TOMBS	DISTANCE	DATE	FOUND 1	FOUND 2	FOUND 3	FOUND 4
Chamber Tomb 1	66, 002335 meters from the sixteenth tomb.	1987				
Chamber Tomb 2	7, 404155 meters from the first tomb.	1989	Remains of a human skull.	Pottery of a later period.	One female clay figurine and other portions of ceramic vessels.	
Chamber Tomb 3	12, 305558 meters from the second tomb.	1989	Fragments of ceramics of Hellenic times.	An empty pit.	Vessels.	Tiles and a bronze hook.
Chamber Tomb 4	8, 533974 meters from the third tomb.	1989	Two disturbed burials.	Fragments and vessels.	A knife and a bronze mirror with an ivory handle.	A ring of copper and silver, two golden rings, beads and golden foils.
Chamber Tomb 6	17, 155603 meters from the forth tomb.	1992	Pottery of Mycenaean, Protogeometric and Hellenistic era.	A few human bones.	Animal teeth and bones.	
Chamber Tomb 7	6, 482914 meters from the sixth tomb.	1995	Scattered bones and fragments of ceramics.	A clay figurine in Ψ shape.	Four clay female figurines and a faience necklace.	A golden necklace and a large number of finest glass beads.
Chamber Tomb 8	8, 674293 meters from the seventh tomb.	1995	A lot of fragments of ceramics.	Two very oxidized pins.		
Chamber Tomb 9	7, 948544 meters from the eighth tomb.	1995	Parts of classical pottery.	Three loomweights.		
Chamber Tomb 10	23, 158994 meters from the sixth tomb.	1996	Bones of two dead.	Fragments of Mycenaean ceramics.	Part of an animal clay figurine.	
Chamber Tomb 11	9, 927176 meters from the tenth tomb.	1997	Scattered bones.	A few fragments of ceramics.	A whole vase.	An empty pit for the older bones.
Chamber Tomb 12	12, 923466 meters from the eleventh tomb.	1997	Three copper arrowheads.	Many golden foils.	A few fragments of ceramics.	Two pits for older bones.
Chamber Tomb 13	10, 093472 meters from the twelfth tomb.	1998	A horizontal strip decorated with ten relief discs above the door.	A human skull, scattered bones and a few thin golden leaflets.	Two burials.	Carved head restraints on both sides of pits, obviously to lean the legs and the head of the dead.
Chamber Tomb 15	38, 840729 meters from the thirteenth tomb.	2000	A stone vase and golden nuggets.	A few scattered fragments of ceramics.	Two burials with the dead placed in a contracted position and their head towards the mouth of the tomb.	

Table 3. Database of chamber tombs

#### 5.7. ACCESSIBILITY TO DISABLED PEOPLE

People with restricted mobility and those who use wheelchair, people with sight problems, people with hearing problems and people with cognitive problems are all visitors. It is appropriate to focus to the accessibility to offer all these people the opportunity to visit and to admire the archaeological site of ancient Thouria. It is therefore necessary to create special constructions, like wooden ramps in the paths with intense morphology to smooth the slope and to facilitate the movement and safety of people with disabilities. It is a fact that a full visit by the disabled is difficult, as the chamber tombs are not suitable for people with restricted mobility. To solve this difficulty, new technology with digital computer representation should be used. So, these people will have the best possible experience from the place. On the other hand, the temple of Asclepius, the tholos tomb, the Complex of Roman Baths, the theatre and in general, the whole archaeological site could easily be accessed by those with restricted mobility, after the removal of the obstacles and the improvements of the pathways. Also, doors with appropriate width in the ticket store and in the café should be installed. Special parking places are needed and the appropriate equipment for W.C. should be placed too. On the other hand, for the visitors with hearing impairments, it is suggested to have the information in written form. For visitors with visual impairments it is suggested information by voice, by using Braille. In addition to these, for visitors with cognitive problems, it is suggested the appropriate training of guards to use a simple language. So, the visit to the archaeological site will be exciting and educational for everyone (Naniopoulos et al, 2009).

#### 5.8. ECONOMICS

A general study of the economics of the site could give us some information on costs and revenues. It is undeniable that, first of all, in order to make the site accessible and profitable for the region is needs some expenses. The expropriation of the plots of the Chamber tombs and Roman Baths is essential. The temple of Asclepius is expropriated as well as the area of the tholos tomb. The theatre is ready for expropriation. In the future, the surrounding fields

should also be expropriated in order to make easier any intervention in it. Also, the facilitating of the roads is essential as the paths planning, fencing, the info- centre, parking, descriptive signs, recruitment, the printing of leaflets and the establishment of a management authority are necessary. The management authority, as it recorded before, has to implement the management plan ( $\Delta IA\Pi\Lambda A\Sigma I\Sigma$ , AX).

The long-term expenses are for the running costs of the info-centre, wages, and maintenance of the whole space, the use of new technologies, the equipment and installation of security systems. The money for the expenses could be provided by the Ministry of Culture, the Region of Peloponnese, the Municipality, the European funds and by private sponsorships as long as possible ( $\Delta IA\Pi \Lambda \Delta \Sigma I\Sigma$ ,  $\Delta X$ ).

Even local shops would be able to financially support the site in return the advertising of them within the space. However, with the appropriate promotion study, the visiting of the site will have an upward trend as well as the sustainable development of the whole area.

#### 5.9. EDUCATION AND EVENTS

The correct enhancement and advertising of the space undoubtedly contributes to its continuous development. Certainly a site can be promoted through some public information in the city center and within the archaeological site in the form of a tour. It is essential for the local community to know its history, to be sensitized and to care for the management and the promotion of the area. Even the volunteering they could offer would be particularly helpful. It is also difficult to include volunteers in a management scheme in Greece. But it would be useful to establish an association such as Friends of Ancient Thouria who could undertake campaigns and maybe raise money for the site. Also, students from the Greek Universities, American School even from Erasmus programs could take part to the excavation for their practice. Undeniably, this is something that reflects the possibilities of space for the implementation of quality education programs. The natural environment of the area in combination with the archaeological and historical environment should be emphasized to be exploited and show the area's development potential. Also,

transport companies that serve the movement of passengers by bus (KTEL) could add routes to the archaeological site in particular, so educational trips could be organized easier.

Additionally, it is needed an alternative tourism program for tourists who are interested in cultural tourism. They can declare participation and come from the rest of the country or from abroad for voluntary work. They will come to the site not for a simple visit but for participating in the excavation, cleaning, opening of visit paths and the placement of the descriptive signs. They will be there as workers and will be taught at the same time, the excavation process, but also all the other activities required for the creation and operation of an archaeological site. There could be cooperation with travel agencies to create holiday packages of this kind of tourism (Tsaravopoulos et al, 2014). What's more, someone who is interested in churches could find plenty of them in the area, from Byzantine, Frankish-Byzantine period, even from later period.

Another idea is the restoration of the theatre as there is plenty of material. Like many ancient theatres in Greece, it could be used nowadays for speeches, contemporary events and concerts. A typical example is the theatre of Epidaurus, which even nowadays operates and hosts major theatre plays, tragedies and comedies. Another example is the theatre of ancient Messene that is closer in the ancient Thouria and it hosts an important youth theatre festival.

### 6. CONCLUSIONS

Considering all the above, the significance of this space is obvious. Its history, the architectural remains and the monuments that have survived until today can give a clear picture of this powerful city. It is a shame that such a rich place is unexploited. It clearly gives prestige to the entire prefecture and its exploitation only positively has to offer.

Of course, there are many things that need to be done, but with good research, positivity and gradually funding, donations and sponsorships, this space can become a remarkable organized archaeological site, easily accessible, safe and smartly

promoted. It could begin gradually by providing visitors with monuments that can easily be visited. The temple of Asclepius may be the first monument as it is in an expropriated area and is organized and cleaned from vegetation. The road, however, needs improvements to become the site easily accessible. Then, an area that can soon be visited is the ancient theatre. The site will soon be expropriated and with the completion of the excavation and some improvements on the road, visitors can easily admire this monument. The theatre clearly gives prestige to the site and could be the most powerful part of the archaeological site after some interventions such as a restoration. It is definitely a place that with the necessary interest, proper management and promotion could attract a crowd of visitors.

Unfortunately, due to incomplete funding monuments particularly important are not protected as they deserve. The tholos tomb needs plenty of work to become accessible but at present it is necessary to have a strong shelter to protect it from the weather as well as the complex of Roman Baths. Chambers tombs, also, are impressive and cause awe to anyone. However, in order to be visited, it must first be expropriated and organized, a fact that is delayed. But with interest, research and patience gradually this area can evolve and even more to become one of the most important areas of the prefecture. Besides, ancient Thouria is a huge city that still has a lot to give.

Finally, cultural heritage is one of the most important assets that Greece has in general. It is undeniable that it contributes greatly to the rise of tourism. The management and enhancement of cultural heritage plays an important role, and even if the economics in the case of ancient Thouria cause problems, what it takes is patience, insistence, flexibility, new ideas to get a better picture of the monuments of this place.

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# **APPENDIX**

# PHOTO GALLERY



Figure 1. View of the acropolis walls (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 2. View of the ancient quarry at the site called Prionista (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 3. Remains of ancient olive presses (http://www.archaiologia.gr/blog/2016/06/1/κατάλοιπα-ελαιοτριβείων-στην-αρχαία/)



Figure 6. The altar of the Christian church constructed of ancient material (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 7. Stoa (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 8. Water duct (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 9. Ceramic tile with stamp  $\Delta[A]MO\Sigma IO\Sigma$  (http://ancientthouriaexcavation.gr/images/)



 $Figure~10.~Treasure~with~inscription~(\underline{http://ancientthouriaexcavation.gr/images/})$ 



Figure 11. Relief plaque with the representation of Satyr (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 12. Pebble flour surrounding the temple (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 13. The wine-press (<a href="http://www.archaiologia.gr/blog/2016/06/1/κατάλοιπα-ελαιοτριβείων-στην-αρχαία/">http://www.archaiologia.gr/blog/2016/06/1/κατάλοιπα-ελαιοτριβείων-στην-αρχαία/</a>)



Figure 15. Temple of Asclepius, ceramin black \$\Lambda A\III\$ (\(\frac{http:\s/\ancientthouriaexcavation.gr\simages\ssigma\)}{\)



Figure 19. Relief plaques of the classical period (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 20. Ancient theatre, view of the orchestra, from the south (<a href="http://ancientthouriaexcavation.gr/images/">http://ancientthouriaexcavation.gr/images/</a>)



Figure 26. Signs near the church of Agia Irini (photo by S. Kalogeropoulou)